



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,415	02/13/2004	Toshikazu Ogino	CU-3570 RJS	7772
26530	7590	10/19/2007		
LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1600 CHICAGO, IL 60604			EXAMINER TIMORY, KABIR A	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 10/19/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

5

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/779,415	<b>Applicant(s)</b> OGINO, TOSHIKAZU	
	<b>Examiner</b> Kabir A. Timory	<b>Art Unit</b> 2611	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 09 October 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) ~~the date~~ set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL -324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: \_\_\_\_\_.
- Claim(s) objected to: \_\_\_\_\_.
- Claim(s) rejected: \_\_\_\_\_.
- Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_
13. ☐ Other: \_\_\_\_\_.

*Shuwang Liu*

**SHUWANG LIU**  
**SUPERVISORY PATENT EXAMINER**

Continuation of 11. does NOT place the application in condition for allowance because: : The argument offered by the applicant with regards to claims have been addressed sufficiently in the examiner's office action and the Examiner's position remains unchanged. There is no objection to specification or the claims..

(1) Applicant's argument – Regarding claims 1 and 3, the Applicant argues that Hutchinson col. 5, lines 2 -4, discloses that "Within an RF transmitter 64 the intermediate frequency carrier." That is, Hutchinson teaches clearly that a carrier wave is modulated in the RF transmitter 64 by an analog FM modulation signal, and therefore there is no rational reason or motivation to perform 1 -bit quantization on the modulated signal obtained as a result of the EM modulation before its transmission within the RF transmitter 64.

Examiner's response - In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See *In re Rilckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) and *in re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). A prima facie case of obviousness is established by presenting evidence that the reference teachings would appear to have suggested the claimed subject matter to one of ordinary skill in the art. See *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993); *In re Fritch*, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783 84 n.14 (Fed. Cir. 1992); *Uniroyal, Inc. v. Rudkin Wiley Corp.*, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); *Ashland Oil, Inc. v. Delta Resins & Refractories Inc.*, 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985).

The Examiner points to a communication system of Hutchinson et al., which comprises a transmitter and receiver a communication systems as shown in figure 1 interconnected a wideband digital communications transceiver of the invention. The dualmode communications unit (10) includes a dualmode transmitter (14) disposed to transmit digital information signals to a dual -de digital receiver 16. In a digital FM mode, the transmitted digital information signals are generated within the dualmode transmitter through FM Modulation of an RF carrier on the basis of digitized audio and wideband data signals. The Examiner also asserts that Sutterlin et al. teaches a converter, which is comprised of a first order sigma delta modulator as shown in figure 3, where 301 followed by a digital decimation filter 302. The term "first order" refers to the single integrator roll off in the sigma delta loop. The one -bit digital signal output from the first order sigma -delta modulator 301 is supplied to the digital decimation filter 302, which translates the oversampled sequence  $y(n)$  into a digital sequence  $x(n)$  with a lower sampling rate and increased magnitude resolution. Furthermore, in figure 8, Sutterlin et al. discloses a comparator performing the one-bit quantization.

The Applicant does not rebut any of these assertions. The Examiner further relies on the benefits of the one-bit quantization for reducing and/or eliminating the threshold inaccuracy noise, as would be the case with a multi-bit quantization and also its simplicity and inexpensive method of DAC conversion to conclude that one of ordinary skill in the art would have been motivated to combine the references.

When an obviousness determination relies on the combination of two or more references, there must be some suggestion or motivation to combine the references. See *In re Rouffet*, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998). The suggestion to combine may be found in explicit or implicit teachings within the references themselves, from the ordinary knowledge of those skilled in the art, or from the nature of the problem to be solved. See *id.* at 1357, 47 USPQ2d at 1458. Moreover, as long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor. See *In re Dillon*, 919 F.2d 688, 693, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990)(en banc), cert. denied, 500 U.S. 904 (1991) and *In re Beattie*, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992).